

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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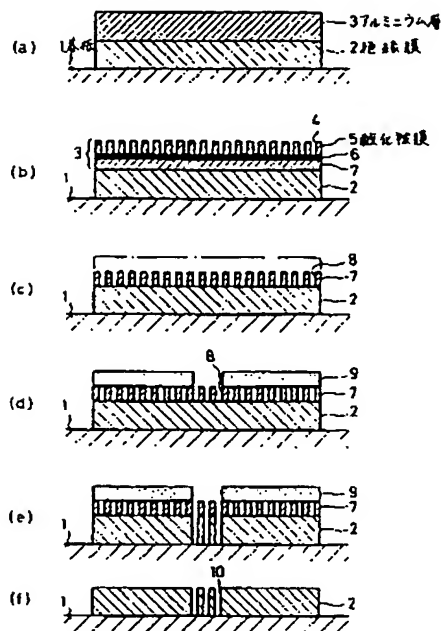
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TITLE : FORMATION OF PORE



**ABSTRACT :** **PURPOSE:** To form holes finer than holes through a photolithographic method by a method wherein the upper layer section of an aluminum layer laminated on the surface of a material is anodized, an oxide film layer having a large number of pores is formed, the lower layer section of the aluminum layer is etched back while using the oxide film layer as a mask, the material is etched while employing the aluminum layer as a mask and the pores are formed.

**CONSTITUTION:** An insulating film 2 is shaped onto an insulating substrate 1, and an aluminum layer 3 is deposited onto the insulating film 2. The surface of the aluminum layer 3 is anodized, and an oxide film 5 having a large number of pores 4 is formed to the upper layer section of the aluminum layer 3 and a barrier layer 6 under the oxide film 5. The barrier layer 6 is etched back while using the oxide film 5 as a mask, an aluminum layer 7 is etched back while employing the etched-back barrier layer 6 as a mask, and pores 8 having the same size as the pores 4 of the oxide film 5 are formed. A resist layer 9 is deposited onto the top faces of the pores 8, the insulating film 2 is etched while employing the resist layer 9 as a mask, and pores 10 having the same size as the pores 8 of the aluminum layer 7 are shaped.

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